

Development of extrudate enriched with green leafy vegetable powder and its effect on nutritional characteristics

Kailash Chandra Yadav¹ and Ramesh Chandra²

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ABSTRACT : The extrudate was developed by incorporating a blend (25:5, 20:10, 15:15 and 5:25) of spinach and curry leaf powder using a single screw extruder. The process variables were barrel temperature (120 to 160°C), die head temperature (180 to 220°C) and screw speed (70 to 150 rpm) with the varying moisture content of feed (9-21%). The analyzed parameters for nutritional characteristics were protein, fat and carbohydrate. The minimum, maximum and mean value of protein 9.8%, 17.2%, 13.46%, Carbohydrate 53.10, 55.4, 54.22 and Fat content 0.33%, 3.34% and 1.87%, respectively. Protein content increased with increase in spinach powder content. Carbohydrate content was highly influenced by the proportion of curry leaf powder while fat content was also influenced by the proportion of spinach powder.

Key Words: Extrusion, spinach powder, curry leaf powder, nutritional characteristics.